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IN THE CLAIMS

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. - 8. (Canceled).

9. (Original) A method for manufacturing an optical element on a surface of which dielectric convex portions, which are formed with laminated film layers of at least two kinds of dielectric materials which are different in permittivity, are periodically aligned so as to have a grating constant corresponding to a wavelength of a light, comprising the steps of:

forming a dielectric multiple film layer on a surface of a substrate;

radiating a laser beam having an intensity distribution onto said dielectric multiple film layer; and

removing a portion of the dielectric multiple film layer depending on the intensity distribution of the laser beam by fusion, evaporation or ablation which occurs by making said dielectric multiple film layer absorb energy from the laser beam radiated thereon, so as to leave the other portions as the periodically aligned dielectric convex portions having a grating constant corresponding to the wavelength of the beam, wherein

a thickness or an absorption index of said dielectric multiple film layer with respect to the laser beam is set at a value less than a threshold value that is enough for the laser beam to reach a surface of said glass substrate penetrating through said dielectric multiple film layer to cause the fusion, evaporation or ablation, and a laser processing is treated until the surface of said glass substrate appears on the concave portion on which the laser beam having the highest intensity is radiated.

10. (Original) A method for manufacturing an optical element as defined in Claim 9, wherein said dielectric multiple film layer is formed by lamination at least two kinds of

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film layers, which are selected from silicon oxide, titanium oxide, cerium oxide, germanium oxide, magnesium fluoride, calcium fluoride, and tantalum oxide.

11. A method for manufacturing an optical element as defined in Claim 9, wherein said laser beam has a periodic intensity distribution in one direction, and said laser beam having a periodic intensity distribution in one direction is obtained through a phase mask or interference between two laser beams.

12. A method for manufacturing an optical element as defined in Claim 9, wherein said laser beam has periodic intensity distributions in two directions, and said laser beam having the periodic intensity distributions in two directions is obtained through interference among at least three laser beams.